

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PT5184PCT		FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/003492	International filing date (day/month/year) 02.04.2004	Priority date (day/month/year) 09.05.2003	
International Patent Classification (IPC) or national classification and IPC			
Applicant SEW-EURODRIVE GMBH & CO. KG			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>9</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand		Date of completion of this report	
Name and mailing address of the IPEA/EP		Authorized officer	
Facsimile No.		Telephone No.	

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International application No.

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Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-12 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1-17 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/7-7/7 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 4, 8, 14

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 4, 8, 14

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form ☐ has not been furnished
☐ does not comply with the standard

the computer readable form ☐ has not been furnished
☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees the applicant has:
 - ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☒ neither restricted the claims nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
 - ☐ complied with.
 - ☒ not complied with for the following reasons:
4. Consequently, this report has been established in respect of the following parts of the international application:
 - ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-3, 5-7, 9-13, 15-17 (unless dependent on claims 4, 8, 14)

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	3, 6, 9-11, 13, 15-17	YES
	Claims	1, 2, 5, 7, 12	NO
Inventive step (IS)	Claims		YES
	Claims	3, 6, 9-11, 13, 15-17	NO
Industrial applicability (IA)	Claims	1-3, 5-7, 9-13, 15-17	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
This report makes reference to the following documents:			
D1: DE 199 13 833			
D2: EP 1 049 234			
D3: EP 1 231 701			
D4: EP 0 993 098			
D5: US 3 149 499			
2. The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2) (see Box IV).			
3. Dependent claims 2, 3, 5-7, 9-13 and 15-17 likewise cannot be considered novel or to involve an inventive step (PCT Article 33(2) and (3)).			
Claim 2: D1, column 3, line 38, figure 1			
Claim 3: D1 and D4, figure 1			
Claim 5: D1, no.17, figure 3, 4			
Claim 6: D1 and D3, figure 1, no. 10, 10'			
Claim 7: D1, figure 1, 2 and 4; column 3, line 61-			

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>column 4, line 30</p> <p>Claim 9: D1 and D3, figure 1</p> <p>Claim 10: D1 and D3, figure 1, no. 10</p> <p>Claim 11: D1 and D5, figure 3, no. 46; column 3, lines 34-35</p> <p>Claim 12: D1, figure 1, nos. 9, 10 and 11</p> <p>Claim 13: Proceeding from D1, modifying the connection such that connection devices are present on the housing is obvious to a person skilled in the art.</p> <p>Claim 15: D1 and D3, figure 8. The cooling ribs allow water to run off.</p> <p>Claim 16: That heat transmission is greater when mediated by cooling ribs compared with smooth surfaces is true but trivial.</p> <p>Claim 17: D1 and D3. D3, figure 8 clearly shows a flow of heat conducted to ambient air from the "drive circuit" (420) via both the cooling ribs to the right of said circuit and a planar area of the housing (530). More heat is dissipated via the cooling ribs (see above).</p>

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box IV.3

The different inventions/groups of inventions are:

1-3, 5-7, 9-13 and 15-17 (unless dependent on claims 4, 8 and 14)

gear and housing

4 and 8 (if entirely dependent on claim 1)

motor type and sensor

14 (if entirely dependent on claim 1)

modulation of data

These inventions/groups of inventions are not so linked as to form a single general inventive concept (PCT Rule 13.1). The reasons are:

The three groups of claims are neither linked by a common inventive concept (PCT Rule 13.1) nor possess common special technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art (PCT Rule 13.2). The reasons are:

The subject matter of independent claim 1 is not novel within the meaning of PCT Article 33(2) and therefore does not contain any special technical features.

DE 199 13 833 (D1) discloses a compact drive (column 4, line 43) comprising at least an electric motor, a gear (column 3, lines 35-38) and a converter (column 4, lines

Supplemental Box

22-23 and 37-38), characterized in that the input shaft of the gear and the rotor shaft are arranged in parallel and the centre distance of at least a gear stage is fixed (figure 1, 2; "reduction gear" 7 is a gear stage).

The subject matter of claim 1 is not novel (PCT Article 33(2)) and therefore does not contain any special technical features.

Note that EP 1 049 234 (D2) (for example, figures 3, 5, 7 and 9) also provides evidence of the absence of special technical features in claim 1.

The remaining claims dependent on non-novel claim 1 contain three inventions which neither possess common special technical features nor are linked by a common inventive concept:

Invention 1:

Special technical feature (claim 3): the gear stage is configured as a setting gear.

Invention 2:

Special technical feature (claim 4): the electric motor is a synchronous motor and/or a permanently excited motor.

Invention 3:

Special technical feature (claim 14): the compact drive comprises at least an electronic circuit for modulating or demodulating data to the power cables.

Supplemental Box

The three inventions therefore lack common special technical features (PCT Rule 13.2).

Examination of the claims for the presence of a common technical effect reveals that the individual inventions have the following technical effects:

Invention 1: infinitely variable drive

Invention 2: high-powered motor

Invention 3: data transmission without additional connection lines.

Configuring the drive in a more compact manner can be considered a common technical effect of inventions 1-3. However, this effect is known to a person skilled in the art. Therefore, inventions 1-3 are not linked by a single inventive concept (PCT Rule 13.1).